Concept Project ASAM OpenTestSpecification

Webinar

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Online

ASAM Association for Standardization of Automation and Measuring Systems

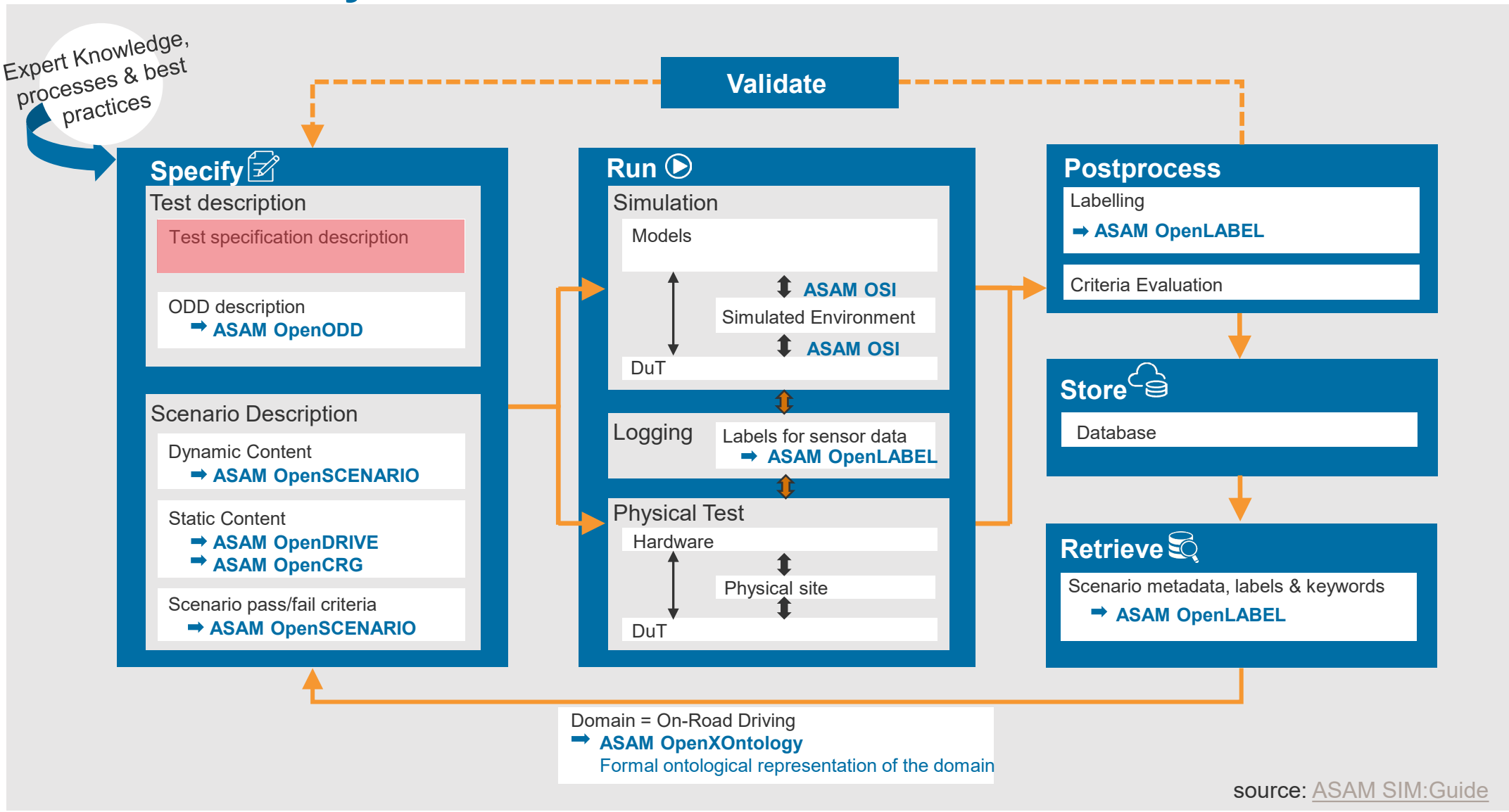
Agenda

- ASAM Concept Project OpenTestSpecification
- Requirements on a standardized test specification
- Next steps: Call for candidates
- Discussion

ASAM Concept Project OpenTestSpecification

ASAM

How did the activity start?



source: ASAM SIM:Guide

ASAM Test Specification Study Group

MISSION STATEMENT

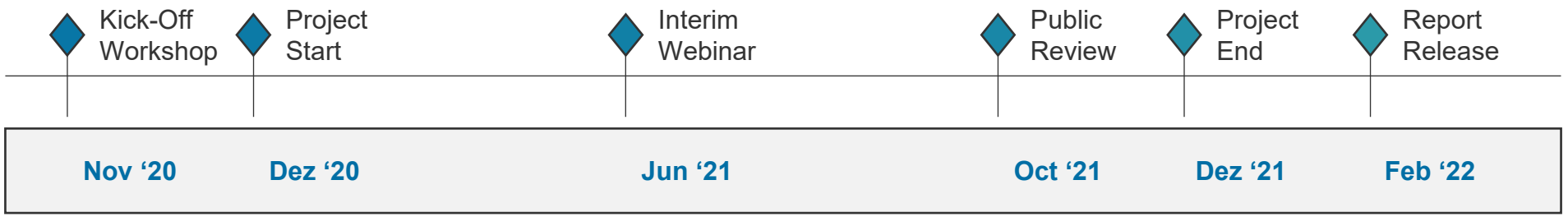
- Examine relevant workflows and use cases for testing and homologation in the ADAS/AD domain

  → Identify relevant standards, potential workflows and their interplay

- Document a comprehensive overview of use cases, corresponding workflows, relevant users and standards

- Identify gaps in the workflows, leading to the identification of potentially needed additions to existing standards, liaisons between standards, or even the need for completely new standards

- Collect and document recommendations. Define a basis for follow-up activities and projects



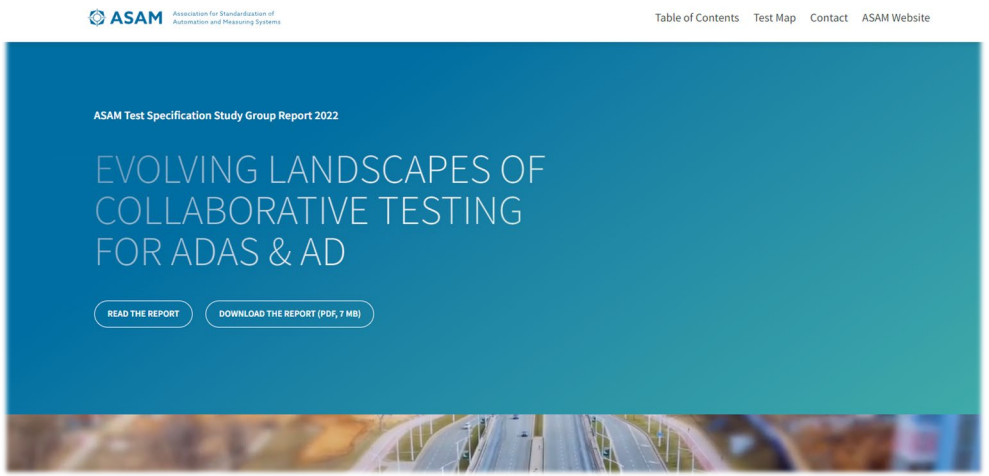
ASAM Test Specification Study Group

REPORT

- Examination of **relevant test techniques and use cases for testing and homologation** in the ADAS/AD domain
- Documentation of **overall use cases for testing and homologation**, workflows implementing these, an overview of relevant users, standards and their application
- **Recommendations** for additions to existing standards or creation of new standards
- Core goal: **Define a valid basis for follow-up activities and projects**

Read the full report!

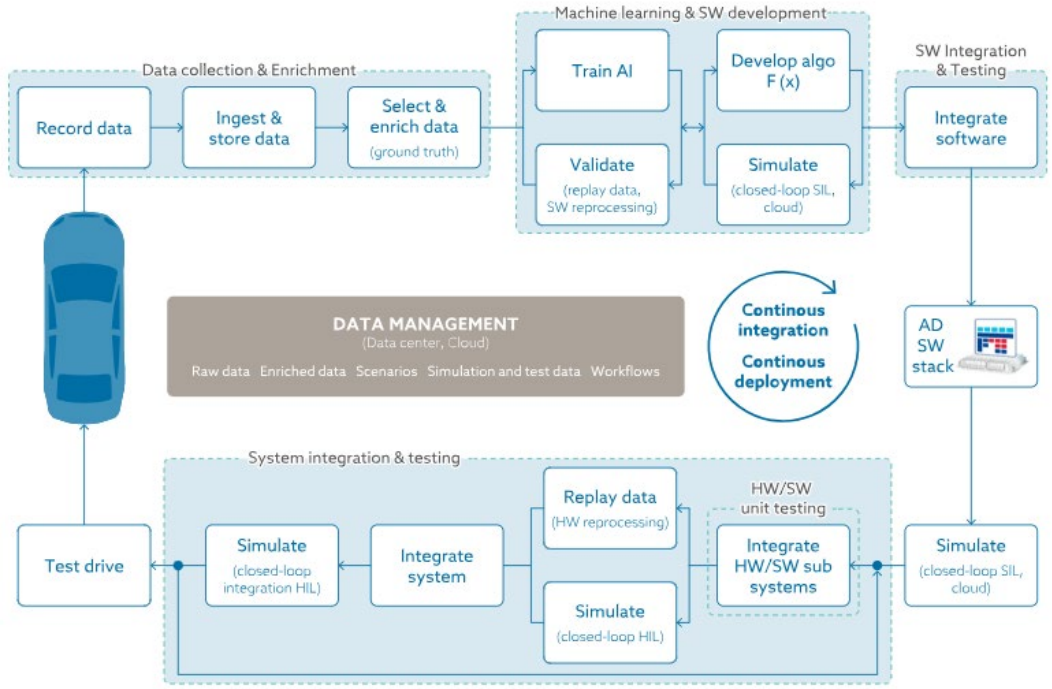
report.asam.net



Automotive Industry Insights

Data-driven Development and Shifting Responsibilities

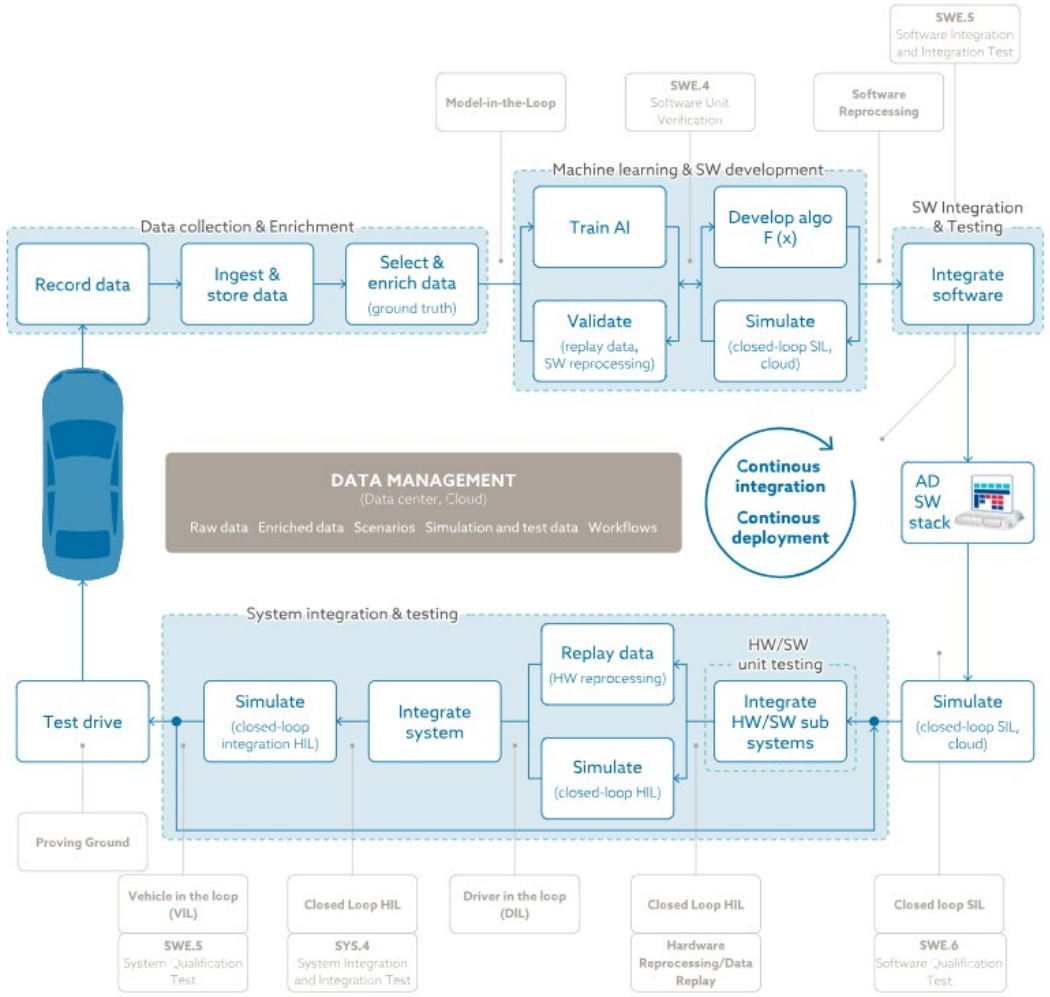
- Just as software is the key to most of today's automotive breakthroughs, data-driven development is key to establishing new automated driving functions.
- However, with Big Data, shifting paradigms, and AI, how will players in the automotive industry ensure the safety of functions and the future development of autonomous driving (AD)?
- A close examination of the situation shows the necessity of the early integration of best practices and comprehensive strategies into the process – a matter of intensive exchange, investment, and strong partnerships.



Automotive Industry Insights

The Derived Blueprint

- software-centric and (partially) autonomous vehicles if testing, verification, and validation are holistically managed, defined, and assessed.
- The blueprint shown should be seen as a starting point, enabling the automotive industry to challenge its own established procedures, to adapt them, if necessary, and to consciously use them to ensure safety.
- This blueprint is based on current safety standards, established best practices, and important norms.
- If you take Automotive SPICE, for example, and combine the phases of testing required there with data-driven development, it quickly becomes clear that the same requirements also come into play here. We do not have to reinvent the wheel, but the wheel must evolve.



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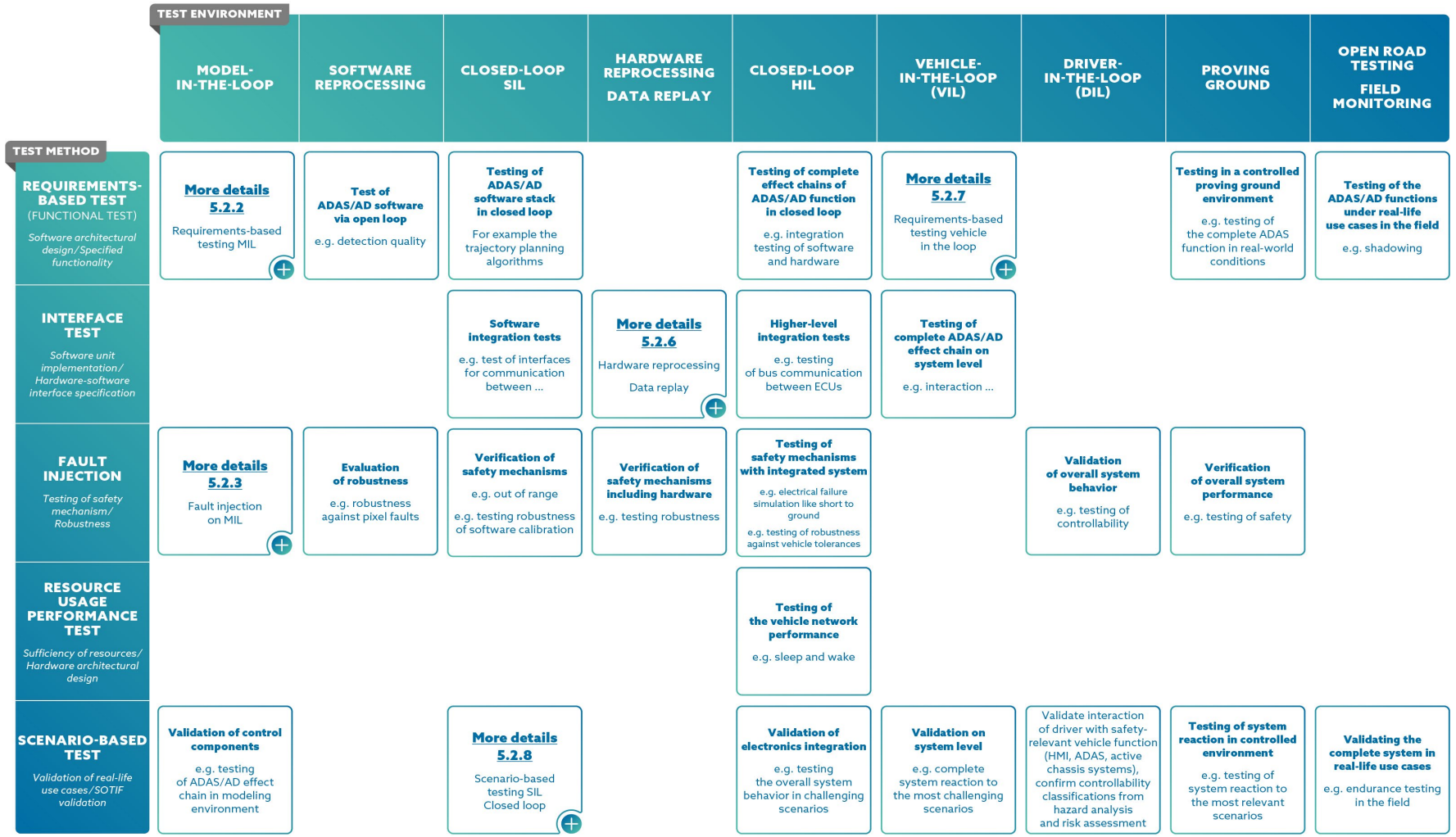
TEST STRATEGY BLUEPRINT

Test Methods and Use Cases

- **Blueprint to meet the challenges of testing**
- **Holistic best practice** that can be tailored to the specific requirements, but meets regulatory, legal, and technical requirements
- **Possible basis for the homologation of automated driving functions and software-defined vehicles**



source: ASAM Test Specification Study Group Report

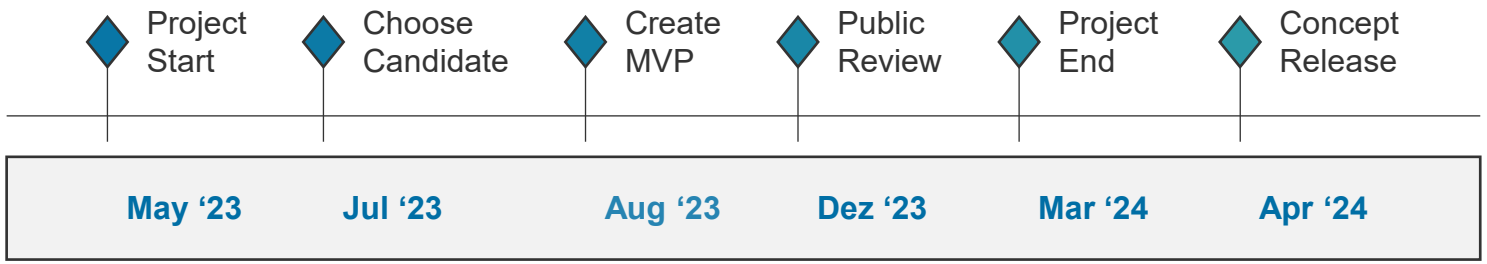
ASAM

Concept Project ASAM OpenTEST

GOALS

Develop a technical basis, including clear requirements, for how a suite of standards could support various testing workflows

- Build on the test spec report to define requirements towards a suite of standards for testing. Use the blueprint as basis for defining the requirements
- Evaluate existing standards, standardization activities and/or proprietary solutions to determine if new standard(s) need to be defined
- Implement an MVP demonstrating consistent application of the concepts across different test platforms via a specific use case




source: ASAM

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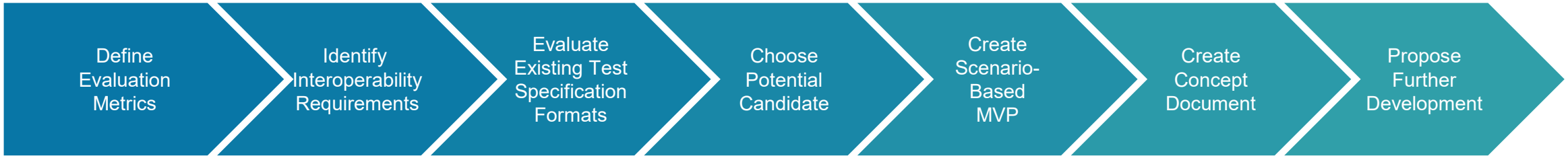
PROJECT STRUCTURE

Subgroup Standardization Proposal



Subgroup Blueprint Update